

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Thomas L. McLaughlin et al.
Title: TOPCOATED ADHESIVE
Docket No.: 26651US10

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Prior to the examination of the above-identified patent application, it is requested that the following amendments be made.

IN THE SPECIFICATION:

Please add the following paragraph before the paragraph beginning on page 1, line 2.

--This application is a division of U.S. Application Serial No. 08/341,464, filed November 17, 1994, which in turn is a continuation of U.S. Application Serial No. 08/265,691, filed June 24, 1996, which in turn is a continuation of U.S. application Serial No. 07/881,682, filed May 12, 1992.--

Please replace the paragraph beginning on page 5, line 24, with the following rewritten paragraph:

In respect of the manufacture of diaper fastener-tab stock with "built-in" end tabs, the invention provides a

variant or alternative to the design of diaper fastener-tab with built-in end tab taught in U.S. Patent Application Serial No. 07/710,690, filed June 5, 1991, of common assignee.--

Please replace the paragraph beginning on page 6, line 7, with the following rewritten paragraph:

--FIG. 6 is a view similar to FIG. 5, but showing two adjacent layers of the tape of FIG. 5, with one layer superposed on the other, and thus illustrating two layers of the tape as they would appear in a cross-sectional view of a roll of the tape.--

Please add the following paragraphs before the paragraph beginning on page 6, line 24:

--FIG. 13 is a cross-sectional view similar to FIG. 7 showing tape stock for the manufacture of another form of diaper tabs according to the invention.

FIG. 14 is a view similar to FIG. 13 and showing additional tape stock used with the stock of FIG. 13.

FIG. 15 is a cross-sectional view of the tape stocks of FIGS. 13 and 14 combined with each other. FIG. 15 may also be interpreted as a side elevation view of an individual diaper tab cut from the combined stock.

FIG. 16 shows an individual tab corresponding to the construction of FIG. 15 applied around the edge of a diaper.

FIG. 17 shows the same tab deployed for fastening to another part of the diaper.--

Please replace the paragraph beginning on page 10, line 17, with the following rewritten paragraph:

--FIGS. 4 to 6 illustrate the novel tape stock and tape of the invention in greater detail. FIG. 4 is a cross-sectional view, partly broken, taken on plane 4-4 of FIG. 2 and inverted 180 degrees. The easier or lower release coating 33 and higher or harder release coating 35 are shown. FIG. 5 is a cross-section of the slit individual tape which is self-wound into the roll 41. FIG. 6 shows two adjacent wraps or turns of the roll 41. While these figures are not to scale, they do give a rough idea of the insignificant effect of the printed adhesive-inhibiting masking 36 on the overall thickness of the tape. As suggested in FIGS. 4 - 6, the tapes are substantially uniform in thickness from edge to edge. Preferably, the thickness of the masking means is less than 1% of the combined thickness of the associated substrate and substrate adhesive.--

Please add the following paragraph before the paragraph beginning on page 10, line 36:

--In sum, the thickness of the masking means is a small percentage of the combined thickness of the associated substrate and substrate adhesive, preferably less than 1%, the tape or diaper fastener stock has a substantially uniform edge-to-edge thickness, the stock may be tightly rolled, and the layer edges at both sides of rolls of the stock are solidly supported by adjacent layer edges.--

Please add the following paragraph before the paragraph beginning on page 11, line 12:

--(All of the capitalized names of products used in the following descriptions of maskings, release coatings, liner, and adhesives are proprietary trademarks or trade names of the indicated manufacturers or supplies.)--

Please replace the paragraph beginning on page 11, line 19, with the following rewritten paragraph:

--A suitable masking or such adhesive may be formed by printing, using as the ink "FLEXO WRITE ON WHITE CLA 30357" ink supplied by Sun Chemical Corp. The ink may be thinned with a press solvent to a running viscosity of 20-22 seconds as measured using a No. 2 Zahn Cup. The solvent may be a mixture of 75% normal propyl alcohol,

25% ethyl acetate and 5% "EKTOSOLVE" (Chemcentral,
ethylene glycol monoethyl ethyl ether).--

Please replace the paragraph beginning on page 11,
line 26, with the following rewritten paragraph:

--The following has been used for the lower or
easier release coating 33, in weight percentages:

- 96.10% Dow "SYLOFF 7044" (100% solid, rhodium
precatalyzed organofunctional siloxane
easy release polymer)
- 3.90% Dow "Q2-7048" (100% solid reactive
polymethylhydrogen siloxane, crosslinker
polymer)--.

Please replace the paragraph beginning on page 11,
line 31, with the following rewritten paragraph:

--The following has been used for the higher or
harder release coating 35:

- 51.00% Dow "SYLOFF 7044" (100% solid, rhodium
precatalyzed organofunctional siloxane
easy release polymer)
- 44.50% Dow "Q2-7069" (100% solid, rhodium
precatalyzed organofunctional siloxane
high release polymer)
- 4.50% Dow "Q2-7048" (100% solid reactive
polymethylhydrogen siloxane, crosslinker
polymer)--.

Please replace the paragraph beginning on page 12,
line 2, with the following rewritten paragraph:

--A suitable choice for liner in the practice of the invention as above described is 80# "SUPER TOUGH" paper (Otis Paper).--

Please replace the paragraph beginning on page 12, line 35, with the following rewritten paragraph:

--The first and second substrate adhesives may have the following formulation:

31.7%	"KRATON 1107" (Shell Chemical, polystyrene-isoprene-polystyrene linear block copolymer)
46.3%	"ESCOREZ 1310LC" (Exxon Chemical, solid C ₅ tackifying resin)
19.8%	"WINGTACK 10" (Goodyear Chemical, solid C ₅ tackifying resin)
1.0%	"ETHANOX 330" (Ethyl Corp., phenolic anti-oxidant)
1.2%	"PLASTONOX LTDP" (American Cyanamid, thioester anti-oxidant)--.

Please replace the paragraph beginning on page 13, line 6, with the following rewritten paragraph:

--A suitable masking or barrier may be formed by printing, using as the ink "SUNTEX 182 PINK OLA 40457F" ink supplied by Sun Chemical Corp. The ink may be thinned with the same press solvent given previously, to the same running viscosity.--

Please replace the paragraph beginning on page 14, line 15, with the following rewritten paragraph:

--On the manufacturing line, the diaper fastener stock is unwound and cut transversely to form a series of individual fasteners which are applied, usually in pairs, to individual diapers by being folded around a diaper edge. FIG. 10 shows an individual fastener cut from the stock described above applied around the edge of a diaper 70. This is the undeployed condition of the diaper fastener. Fasteners made according to the invention have been found to perform satisfactorily when applied to "HUGGIES SUPER TRIM DIAPERS" (Kimberly Clark) which, as is typical of many contemporary disposable diaper constructions, have a fastener-receiving frontal tape to reinforce the relatively fragile and easily torn diaper outlet plastic shell or envelope.--

Please replace the paragraph beginning on page 15, line 30, with the following rewritten paragraph:

--Many variations in the specific example described above are possible. FIG. 12 shows a variant in which the invention is incorporated in a diaper fastener of the general type shown in U.S. Patent 4,020,842 to Richman et al. the disclosure of which is incorporated by reference as if fully repeated herein. This type of fastener has more than one additional substrate and correspondingly

more than one deployment means. In the construction of FIG. 12, a first or anchoring substrate 52 and a second or additional substrate 54, and associated first and second substrate adhesives 56 and 58, are provided similarly to the construction of FIG. 9. Further, a third substrate 74 (constituting a second additional substrate) is provided along with associated third substrate adhesive 76. Since this substrate is the outermost in this construction, a release means such as the release coat 77 is provided along the entire length of the substrate for self-winding purposes. The release coat 66 of the FIG. 9 construction is replaced by shortened release coat 66a which extends along the second length portion corresponding to length portion 62 in FIG. 9, but not significantly along the first length portion corresponding to length portion 61 in FIG. 9. Preferably, the substrate adhesives 58 and 76 are interrupted at the fold-around portion of the diaper fastener by adhesive gaps 58g and 76g.--

IN THE CLAIMS:

Cancel claims 6 - 11 without prejudice.

Please add the following claims 12 - 22.

- 1 12. (new) A method of making roll stock comprising
- 2 the steps of:

3 providing a substrate having a length extending in
4 the machine direction, a width extending in the machine
5 cross direction, and a substrate surface,

6 combining said substrate with a pressure-sensitive
7 adhesive layer, said pressure-sensitive adhesive layer
8 having a length extending in the machine direction, a
9 width extending in the machine cross direction, and an
10 exposed adhesive surface remote of said substrate
11 surface,

12 applying adhesive-inhibiting masking to said exposed
13 adhesive surface of said pressure-sensitive adhesive
14 layer along a continuous machine-direction line or zone
15 extending across a portion of said width of said exposed
16 adhesive surface to form a nonadhesive line or zone and
17 an adjacent adhesive surface line or zone substantially
18 free of masking, and

19 winding said substrate and pattern coated adhesive
20 layer into a roll to form said roll stock.

1 13. (new) The method of claim 12, wherein said
2 adhesive-inhibiting masking is applied at a plurality of
3 spaced locations along the width of said exposed adhesive
4 surface to form a corresponding plurality of nonadhesive
5 lines or zones with adjacent adhesive lines or zones.

1 14. (new) The method of claim 13, wherein said
2 substrate also includes side edges extending in the
3 machine direction, and said roll stock has an edge
4 thickness substantially equal to the average thickness of
5 the roll stock across its width.

1 15. (new) The method of claim 13, wherein said
2 substrate also includes side edges extending in the
3 machine direction, and said adhesive-inhibiting masking
4 is also applied in a continuous line or zone at each of
5 said side edges of said substrate to provide pick-free
6 edges.

1 16. (new) The method of claim 12, wherein said
2 adhesive layer has a width substantially equal to the
3 width of said substrate.

1 17. (new) The method of claim 16, wherein said
2 adhesive-inhibiting masking is applied at a plurality of
3 spaced locations along the width of said exposed adhesive
4 surface to form a corresponding plurality of nonadhesive
5 lines or zones with adjacent adhesive lines or zones.

1 18. (new) The method of claim 12, including the
2 further step of subsequently applying additional
3 adhesive-inhibiting masking to said exposed adhesive

4 surface of said pressure-sensitive adhesive layer along a
5 second continuous machine-direction line or zone
6 extending across another portion of said width of said
7 exposed adhesive surface to form a second nonadhesive
8 line or zone spaced from said first mentioned nonadhesive
9 line or zone.

1 19. (new) The method of claim 18, wherein said
2 second nonadhesive line or zone is sized and positioned
3 in a pattern different from that of said first mentioned
4 nonadhesive line or zone.

1 20. (new) A method of making an article having
2 adhesive and nonadhesive surface lines or zones
3 comprising the steps of:
4 providing a substrate including a substrate surface,
5 combining said substrate with a pressure-sensitive
6 adhesive layer, said pressure-sensitive adhesive layer
7 having a width, a length and an exposed adhesive surface
8 remote of said substrate surface,

9 applying adhesive-inhibiting masking in a continuous
10 machine-direction line or zone along said exposed
11 adhesive surface of said pressure-sensitive adhesive
12 layer to form said nonadhesive surface line or zone, said
13 nonadhesive line or zone having a width less than said
14 adhesive layer width whereby an adjacent portion of said

15 exposed adhesive surface of said pressure-sensitive
16 adhesive layer forms said adhesive line or zone, and
17 incorporating said pressure-sensitive adhesive layer
18 into said article to provide said article with said
19 adhesive and nonadhesive surface lines or zones.

1 21. (new) The method of claim 20, wherein said step
2 of incorporating said pressure-sensitive adhesive layer
3 into said article includes incorporating said substrate
4 and said pressure-sensitive adhesive layer in said
5 article.

1 22. (new) The method of claim 20, wherein said step
2 of incorporating said pressure-sensitive adhesive layer
3 into said article includes separating said pressure-
4 sensitive adhesive layer from said substrate and
5 incorporating said pressure-sensitive adhesive layer in
6 said article.

REMARKS

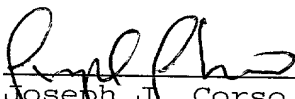
The foregoing amendments in the specification were made in the parent application and are presented herein for purposes of uniformity. These amendments relate to formal matters and contain no new matter.

Claims 1 - 5 were restricted from the parent application and are directed to a method of applying an adhesive-inhibiting masking to a pressure-sensitive adhesive layer of roll stock material. Newly presented claims 12 - 22 are also directed to methods of applying adhesive-inhibiting masking to the pressure-sensitive adhesive layer of a roll stock material. Accordingly, these claims are believed to be properly joined with original claims 1 - 5.

Attached hereto are pages entitled "Version With Markings to Show Changes Made".

If there are any further fees required by this amendment not covered by an enclosed check, or if no check is enclosed, please charge the same to Deposit Account No. 16-0820, Order No. 26651US10.

Respectfully submitted,

By: 
Joseph J. Corso, Reg. No. 25845

526 Superior Avenue East
Suite 1200
Cleveland, Ohio 44114-1484
(216) 579-1700
January 24, 2002

"VERSION WITH MARKINGS TO SHOW CHANGES MADE"

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Title: TOPCOATED ADHESIVE
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IN THE SPECIFICATION:

A paragraph has been added before the paragraph beginning on page 1, line 2.

The paragraph beginning on page 5, line 24, has been amended as follows:

--In respect of the manufacture of diaper fastener-tab stock with "built-in" end tabs, the invention provides a variant or alternative to the design of diaper fastener-tab with built-in end tab taught in U.S. Patent Application Serial No. [07/710,692] 07/710,690, filed June 5, 1991, of common assignee.--

The paragraph beginning on page 6, line 7, has been amended as follows:

--FIG. 6 is a [cross-sectional view of two layers of a roll of the tape seen in] view similar to FIG. 5, but showing two adjacent layers of the tape of FIG. 5, with one layer superposed on the other, and thus illustrating two layers of the tape as they would appear in a cross-sectional view of a roll of the tape.--

Paragraphs have been added before the paragraph beginning on page 6, line 24.

The paragraph beginning on page 10, line 17, has been amended as follows:

--FIGS. 4 to 6 illustrate the novel tape stock and tape of the invention in greater detail. FIG. 4 is a cross-sectional view, partly broken, taken on plane 4-4 of FIG. 2 and inverted 180 degrees. The easier or lower release coating 33 and higher or harder release coating 35 are shown. FIG. 5 is a cross-section of the slit individual tape which is self-wound into the roll 41. FIG. 6 shows two adjacent wraps or turns of the roll [42] 41. While these figures are not to scale, they do give a rough idea of the insignificant effect of the printed adhesive-inhibiting masking 36 on the overall thickness of the tape. As suggested in FIGS. 4 - 6, the tapes are substantially uniform in thickness from edge to edge. Preferably, the thickness of the masking means is less than 1% of the combined thickness of the associated substrate and substrate adhesive.--

A paragraph has been added before the paragraph beginning on page 10, line 36.

A paragraph has been added before the paragraph beginning on page 11, line 12.

The paragraph beginning on page 11, line 19, has been amended as follows:

--A suitable masking or such adhesive may be formed by printing, using as the ink ["Flexo Write on White" CLA 40457F] "FLEXO WRITE ON WHITE CLA 30357" ink supplied by Sun Chemical Corp. The ink may be thinned with a press solvent to a running viscosity of 20-22 seconds as measured using a No. 2 Zahn Cup. The solvent may be a mixture of 75% normal propyl alcohol, 25% ethyl acetate and 5% ["Ektosolve" (Chemcentral)] "EKTOSOLVE" (Chemcentral, ethylene glycol monoethyl ethyl ether).--

The paragraph beginning on page 11, line 26, has been amended as follows:

--The following has been used for the lower or easier release coating 33, in weight percentages:

[Dow Syloff 7044	96.10%
Dow Q2-7048	3.90%]

<u>96.10%</u>	<u>Dow "SYLOFF 7044" (100% solid, rhodium precatalyzed organofunctional siloxane easy release polymer)</u>
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<u>3.90%</u>	<u>Dow "Q2-7048" (100% solid reactive polymethylhydrogen siloxane, crosslinker polymer)--.</u>
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The paragraph beginning on page 11, line 31, has been amended as follows:

--The following has been used for the higher or harder release coating 35:

[Dow Syloff 7044	51.00%
Dow Q2-7069	44.50%
Dow Q2-7048	4.50%]

51.00% Dow "SYLOFF 7044" (100% solid, rhodium precatalyzed organofunctional siloxane easy release polymer)

44.50% Dow "Q2-7069" (100% solid, rhodium precatalyzed organofunctional siloxane high release polymer)

4.50% Dow "Q2-7048" (100% solid reactive polymethylhydrogen siloxane, crosslinker polymer)--.

The paragraph beginning on page 12, line 2, has been amended as follows:

--A suitable choice for liner in the practice of the invention as above described is 80# ["Super Tough"]

"SUPER TOUGH" paper (Otis Paper).--

The paragraph beginning on page 12, line 35, has been amended as follows:

--The first and second substrate adhesives may have the following formulation:

[Kraton 1107 (Shell Chemical)	31.7%
Escorez 1310LC (Exxon Chemical)	46.3%
Wingtack 10 (Goodyear Chemical)	19.8%
Ethanox 330 (Ethyl Corp.)	1.0%
Plastonox LTDP (American Cyanimid)	1.2%]

<u>31.7%</u>	<u>"KRATON 1107" (Shell Chemical, polystyrene-isoprene-polystyrene linear block copolymer)</u>
<u>46.3%</u>	<u>"ESCOREZ 1310LC" (Exxon Chemical, solid C₅ tackifying resin)</u>
<u>19.8%</u>	<u>"WINGTACK 10" (Goodyear Chemical, solid C₅ tackifying resin)</u>
<u>1.0%</u>	<u>"ETHANOX 330" (Ethyl Corp., phenolic anti-oxidant)</u>
<u>1.2%</u>	<u>"PLASTONOX LTDP" (American Cyanimid, thioester anti-oxidant)--.</u>

The paragraph beginning on page 13, line 6, has been amended as follows:

--A suitable masking or barrier may be formed by printing, using as the ink ["Suntex 182 Pink" CLA 40457F] "SUNTEX 182 PINK OLA 40457F" ink supplied by Sun Chemical Corp. The ink may be thinned with the same press solvent given previously, to the same running viscosity.--

The paragraph beginning on page 14, line 15, has been amended as follows:

--On the manufacturing line, the diaper fastener stock is unwound and cut transversely to form a series of individual fasteners which are applied, usually in pairs, to individual diapers by being folded around a diaper edge. FIG. 10 shows an individual fastener cut from the stock described above applied around the edge of a diaper 70. This is the undeployed condition of the diaper

fastener. Fasteners made according to the invention have been found to perform satisfactorily when applied to [Huggies Super Trim diapers] "HUGGIES SUPER TRIM DIAPERS" (Kimberly Clark) which, as is typical of many contemporary disposable diaper constructions, have a fastener-receiving frontal tape to reinforce the relatively fragile and easily torn diaper outlet plastic shell or envelope.--

The paragraph beginning on page 15, line 30, has been amended as follows:

--Many variations in the specific example described above are possible. FIG. 12 shows a variant in which the invention is incorporated in a diaper fastener of the general type shown in U.S. Patent 4,020,842 to Richman et al. the disclosure of which is [adapted] incorporated by reference as if fully repeated herein. This type of fastener has more than one additional substrate and correspondingly more than one deployment means. In the construction of FIG. 12, a first or anchoring substrate 52 and a second or additional substrate 54, and associated first and second substrate adhesives 56 and 58, are provided similarly to the construction of FIG. 9. Further, a third substrate 74 (constituting a second additional substrate) is provided along with associated third substrate adhesive 76. Since this substrate is the

outermost in this construction, a release means such as the release coat 77 is provided along the entire length of the substrate for self-winding purposes. The release coat 66 of the FIG. 9 construction is replaced by shortened release coat 66a which extends along the second length portion corresponding to length portion 62 in FIG. 9, but not significantly along the first length portion corresponding to length portion 61 in FIG. 9. Preferably, the substrate adhesives 58 and 76 are interrupted at the fold-around portion of the diaper fastener by adhesive gaps 58g and 76g.--

IN THE CLAIMS:

Claims 6 - 11 have been cancelled.

Claims 12 - 22 have been added.